

Towards a Citizen's Pension: Interim Report December 2004

Appendix One: Assumptions and alternative scenarios for Charts 1 and 2 in Chapter 1

These appendices should be read together with the main report

**Produced by the Pensions Policy Institute
for the National Association of Pension Funds**

Appendix 1: Assumptions and alternative scenarios for Charts 1 and 2 in Chapter 1

Charts 1 and 2 in Chapter 1 highlight the amount of state pension income that individuals with different levels of earnings can expect to receive when reaching age 65 in 2031 and 2051. These have been projected using the PPI Individual Model. This appendix outlines some of the assumptions used.

The Individual Model

The Individual Model (IM) is a model of pension income that simulates pension income for individuals and households reaching state pension age today and in the future¹.

The main characteristics of the IM

The model uses a set of assumptions about an individual's working and pension contribution histories, the performance of the economy and the current up-rating conventions used in the pension system.

Using these assumptions, different earnings and benefit levels can be simulated to calculate pension entitlements, state and private, for illustrative individuals in current and future generations of pensioners. Pension income can be calculated at any given point in time while in retirement.

State pension entitlement is calculated according to the individuals' work and contribution histories. The 'rules' used are the actual rules of the past pension system year by year, and the current rules projected into the future, assuming no changes to the current system.

Private pension accrual is also assumed to depend on the work history, as detailed for each individual. In each year where private pension is accrued, contributions are made into a money-purchase pension scheme (such as a stakeholder pension) by the individual and/or the employer.

State and private pension accruals are used to calculate weekly pension income from state pension age:

- State pension provision includes Basic State Pension (BSP), Graduated Retirement Benefit (GRAD), State Earnings Related Pension Scheme (SERPS), State Second Pension (S2P), other state benefits such as Winter Fuel Allowance and the Pension Credit (PC) .
- Private pension provision includes pension saving and can include other forms of savings (such as housing). Future streams of private pension provision are calculated through annuity purchases.

¹ The IM has been developed as part of a 3-year research project funded by the Nuffield Foundation

Illustrative individuals

Typical policy analysis assumes that individuals remain in full-time work at the same earnings level from the day they leave education to the day they reach 65. Rather than use these artificial assumptions, the individuals analysed here illustrate some of the range of characteristics that exist in the working population that affect current and future pension outcomes. They are similar to individuals used in previous PPI studies².

The illustrative individuals used are:

- An illustrative man: He worked mainly full-time from age 21, but was unemployed for two years in his twenties and worked part-time between age 55 and age 60.
- An illustrative woman: She started work at the age of 21, working full-time until 28. She then had a career break to care for her children for six years, but the break did not coincide with the financial year, so she lost two credits to the BSP. She returned to part-time work for four years, but earned below the Lower Earnings Limit (LEL), so she did not accrue rights to the BSP or S2P. She then worked full-time, earning above the LEL, from 41 until retiring at state pension age.

Earnings

The earnings levels used are based on the earnings received at different ages. For example, the illustrative woman with median earnings is assumed to have the median earnings of all full-time employed 21 year-old women when she is aged 21, and the median of all full-time employed 22 year-old women when she is aged 22. This allows a more realistic earnings profile than assuming the median or average of all workers throughout the working life. Earnings tend to be higher in the middle of working life than at younger and older ages³.

The state pension system

The current pension system is assumed to continue, with the same uprating conventions as are used today:

- The Basic State Pension and SERPS/State Second Pension are assumed to be increased in line with prices when in payment. The Basic State Pension level is assumed to remain the minimum income level for entitlement to Savings Credit.
- The Guarantee Credit is assumed to be increased in line with earnings
- The Lower and Upper earnings limits for State Second Pension are assumed to increase in line with prices. The Lower Earnings Threshold (LET - the 'flat-rate' part of State Second Pension) is assumed to increase in line with earnings. The Upper Earnings Threshold is assumed to increase to reflect the changes in the LET, ensuring that higher earners receive the same in State Second Pension as they would have received in SERPS. When the Upper Earnings Threshold overtakes the Upper Earnings Limit, it is assumed to be uprated in line with prices⁴.

² For example, PPI (2004) *State Pension Reform: Managing Transition* and PPI Briefing Note Number 10 *The balance between state and private pension provision*

³ For further discussion of earnings profiles, and more general modelling assumptions, see Curry (2003) *The Under-Pensioned: Technical Paper*

⁴ For a full description of earnings limits and thresholds see PPI (2004) *The Pensions Primer*

Macroeconomic assumptions

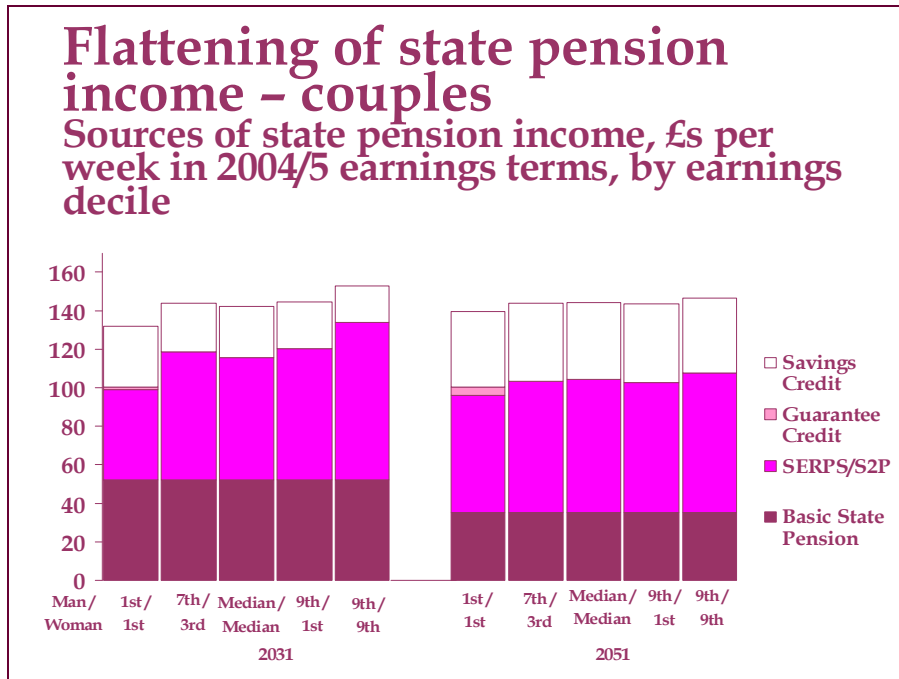
- Prices are assumed to grow by 2.5% each year.
- Earnings are assumed to grow by 2% a year on top of price growth.

The state pension system also becomes flatter for couples

Charts 1 and 2 illustrate how the state pension system is changing for women and men. Similar changes occur for couples (Chart A1).

To compare against single pensioners, the total pension income of couples is adjusted downwards. Total pension income is divided by 1.6, the factor most commonly used under the current pension system to calculate benefit levels for couples.

Chart A1⁵



State pension income falls during retirement

Charts 1 and 2 in the main report show the amount of state pension income available at age 65. Once in payment, income from the Basic State Pension and SERPS/S2P fall relative to average earnings, as they only rise in line with prices. Some, but not all, of this relative fall, is offset by increased entitlement to Guarantee Credit and Savings Credit.

⁵ PPI calculations based on the IM model. Each couple is made up of an illustrative man and an illustrative woman, with different combinations of earnings levels.

As a result, during retirement;

- State pension income falls relative to average earnings.
- More state pension income comes from Guarantee Credit and Savings Credit.

Charts A1.2 to A1.4 show the amount of state pension received by our illustrative individuals and couple at age 75.

Chart A1.2

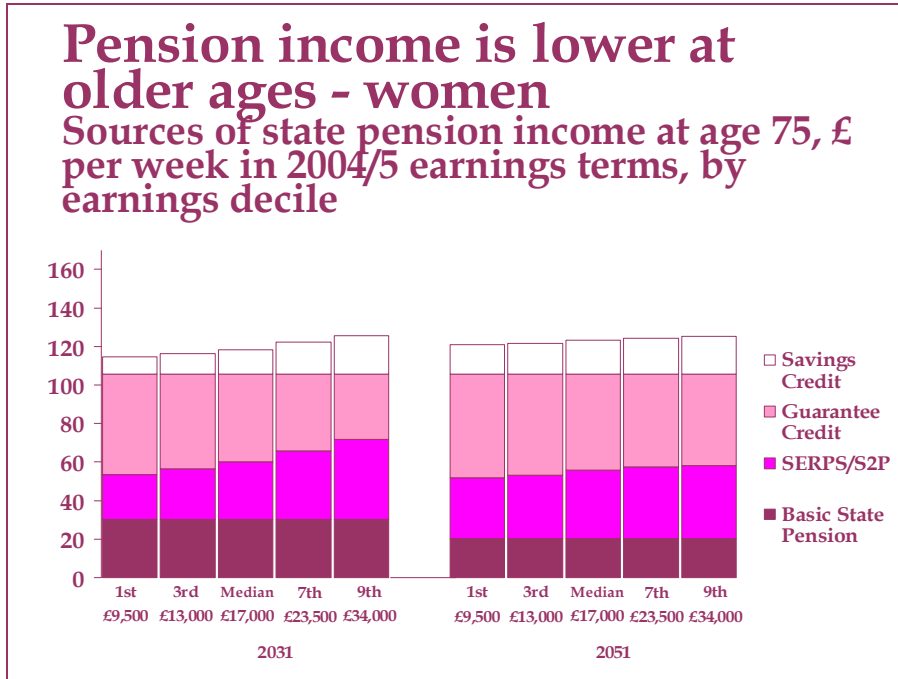


Chart A1.3

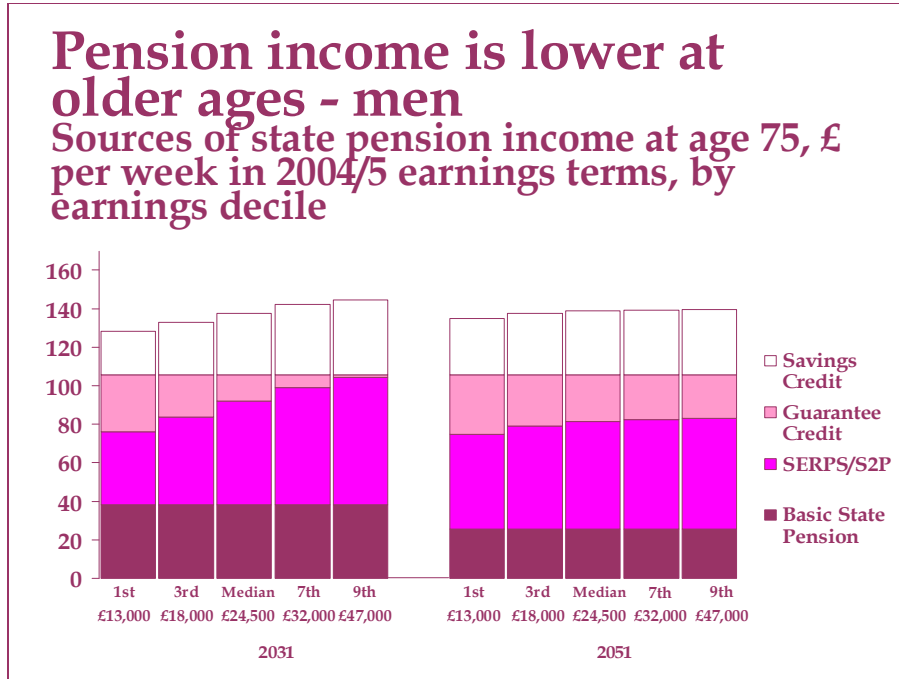


Chart A1.4

